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WIRELESS CONSUMERS ALLIANCE INC.

CC Docket No. 94-102

February 26, 1999

Mr. Dale Hatfield
Chief, Office of Engineering
and Technology
2000 M Street, N.W.
Room 480
Washington, D.C. 20037

Re: Ex Parte Presentation
CC Docket No. 94-102

Dear Mr. Hatfield:

During our meeting on Thursday, February 18, we presented certain flow charts showing the operation of Automatic A/B Roaming and Strongest/Adequate Signal. You suggested that it would be useful if we would reformat these flow charts to present a side by side presentation for comparison. We have followed this suggestion and enclose four such flow charts which represent the most common situations. The first flow chart shows the situation which will occur if the preferred carrier's signal level is at or above the –80 dBm threshold. The second flow chart demonstrates the steps which are taken when the preferred carrier offers a signal level below the threshold. The difference here is Automatic A/B Roaming will connect the call using a poor channel of communication (cross-talk, static and dropped calls) as contrasted to Strongest Signal which will connect the call with the best available channel of communication. The third flow chart shows the situation where the preferred carrier presents an even weaker channel of communication which will not support a voice conversation. With Automatic A/B Roaming, lock-in occurs and all the calling party hears is dead air. This same call is connected to the PSAP with Strongest Signal by switching to the other side. The last flow chart shows the situation where there is no signal from the preferred carrier. In this instance the call is connected however, Automatic A/B Roaming will require some additional steps.

CTIA's letter dated February 19, 1999 states that Automatic A/B Roaming involves a "relatively minor change" which "could be accomplished expeditiously." Our flow charts are based on that description which is consistent with earlier CTIA filings. However, CTIA's letter goes on in its attachment to its letter to describe the Motorola re-try proposal. Six pages of text describing the changes necessary to incorporate this re-try

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proposal were submitted by CTIA to its TIA subcommittee. Our flow charts do not show the many steps required by the re-try proposal. If we incorporate these additional steps into the Automatic A/B Roaming proposal, the processing time would be extended by at least 24 seconds whenever a connection was not accomplished on the first try. This is, of course, way beyond what everybody on the record has said is a reasonable delay.

Strongest/Adequate Signal is based on the use of existing technology to solve a recognized problem which has cost the loss of life and injury. Automatic A/B Roaming would not have saved the Lechuga family, or helped Marcia Spielholz, or made a difference to the Blomme family but Strongest Signal would have helped to save each of them. To reject this proposal on the grounds that there may be some unidentified, unintended consequences seems to us to be disingenuous. It has been over three years since the Strongest Signal petition was filed. In its Report and Order released July 26, 1996, the Commission said "[I]f a commenter believes that Alliance's proposal is technically infeasible, it should provide its reasons in detail, with supporting engineering analyses." (¶ 144). No such filing was made within the comment period and we have not seen any engineering analyses in opposition to Strongest/Adequate Signal. It is respectfully submitted that the only reason for opposition to Strongest/Adequate Signal is because it will connect more non-revenue 911 calls and some of those calls will be from non-subscribers who have not signed a contract releasing the carrier from liability. These are bottom line concerns which cannot be placed above the public interest in "promoting safety of life and property."

Thank you for your courtesy and your consideration of our presentation. We would very much appreciate the opportunity to address any further questions which may arise.

Sincerely,

Carl Hilliard

cc: Office of the Secretary
Ms. Magalie Roman Salas

Office of Engineering and Technology
Mr. Jim Schlichting, Deputy Chief
Mr. Julius Knapp, Chief, Policy & Rules Division
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Mr. John Cimko, Chief, Policy Division
Ms. Nancy Boocker, Deputy Chief, Policy Division
Mr. Ron Netro, Senior Engineer, Policy Division
Mr. Marty Liebman, Engineer, Policy Division

Call Flow if Preferred carrier signal is at or above the threshold level

Automatic A/B Roaming

User dials 911 and presses SEND

↓

Handset recognizes 911 call and sets system select criteria to "Preferred" mode instead of "Only" mode

↓

Handset scans 21 Forward Control Channels on the "Preferred" side and selects the strongest signal as the initial access pathway for the 911 call

↓

Handset issues "Call Origination" to the MTSO on the selected Reverse Control Channel and starts 12 second abort timer running

↓

MTSO assigns a voice channel and SAT for use during call

↓

Handset tunes to assigned voice channel, turns on the handset transmitter listens for and detects appropriate SAT from base station

↓

Handset Transponds SAT to the base station and enables audio path

↓

Base station detects handset signal and appropriate SAT and enables outdial of call into PSTN and enables audio path

↓

Caller hears supervisory signaling (audible ring) and awaits answer from PSAP operator

↓

Caller and PSAP operator in conversation.

Strongest / Adequate Signal

User dials 911 and presses SEND

↓

Handset recognizes 911 call and sets minimum acceptable signal threshhold mode

↓

Handset scans 21 Forward Control Channels on the "Preferred" side and selects the strongest signal and compares it to the minimum signal threshhold level

↓

If the selected signal is at or above the threshhold level the handset sets this channel as theinitial access pathway for the 911 call

↓

Handset issues "Call Origination" to the MTSO on the selected Reverse Control Channel and starts 12 second abort timer running

↓

MTSO assigns a voice channel and SAT for use during call

↓

Handset tunes to assigned voice channel, turns on the handset transmitter listens for and detects appropriate SAT from base station

↓

Handset Transponds SAT to the base station and enables audio path

↓

Base station detects handset signal and appropriate SAT and enables outdial of call into PSTN and enables audio path

↓

Caller hears supervisory signaling (audible ring) and awaits answer from PSAP operator

↓

Caller and PSAP operator in conversation.

Call Flow if Preferred carrier signal is below the threshold level

Automatic A/B Roaming

User dials 911 and presses SEND

Handset recognizes 911 call and sets system select criteria to "Preferred" mode instead of "Only" mode

Handset scans 21 Forward Control Channels on the "Preferred" side and selects the strongest signal as the initial access pathway for the 911 call

Handset issues "Call Origination" to the MTSO on the selected Reverse Control Channel and starts 12 second abort timer running

MTSO assigns a voice channel and SAT for use during call

Handset tunes to assigned voice channel, turns on the handset transmitter listens for and detects appropriate SAT from base station

Handset Transponds SAT to the base station and enables audio path

Base station detects handset signal and appropriate SAT and enables outdial of call into PSTN and enables audio path

Caller hears supervisory signaling (audible ring) and awaits answer from PSAP operator

Caller and PSAP operator in conversation over a channel with cross- talk, noise with a 25% chance that the call will be dropped.

Strongest / Adequate Signal

User dials 911 and presses SEND

Handset recognizes 911 call and sets minimum acceptable signal threshhold mode

Handset scans 21 Forward Control Channels on the "Preferred" side and selects the strongest signal and compares it to the minimum signal threshhold level

If the selected signal is below the threshhold level, the handset scans all 42 Forward Control Channels and selects the one with the strongest signal as the initial access pathway for the 911 call

Handset issues "Call Origination" to the MTSO on the selected Reverse Control Channel and starts 12 second abort timer running

MTSO assigns a voice channel and SAT for use during call

Handset tunes to assigned voice channel, turns on the handset transmitter listens for and detects appropriate SAT from base station

Handset Transponds SAT to the base station and enables audio path

Base station detects handset signal and appropriate SAT and enables outdial of call into PSTN and enables audio path

Caller hears supervisory signaling (audible ring) and awaits answer from PSAP operator

Caller and PSAP operator in conversation.

Call Flow if Preferred carrier signal is unusable but present and the signal from the other carrier is usable

Automatic A/B Roaming

User dials 911 and presses SEND

|

Handset recognizes 911 call and sets system select criteria to "Preferred" mode instead of "Only" mode

|

Handset scans 21 Forward Control Channels on the "Preferred" side and selects the strongest signal as the initial access pathway for the 911 call

|

Handset issues "Call Origination" to the MTSO on the selected Reverse Control Channel and starts 12 second abort timer running

|

MTSO assigns a voice channel and SAT for use during call

|

Handset tunes to assigned voice channel, turns on the handset transmitter listens for and detects appropriate SAT from base station

|

Handset Transponds SAT to the base station and enables audio path

|

Base station fails to detect handset signal with appropriate SAT and withholdsoutdial of call into PSTN and disables audio path

|

Caller hears only "Dead Air"

|

Caller eventually hangs up in frustration

Strongest / Adequate Signal

User dials 911 and presses SEND

|

Handset recognizes 911 call and sets minimum acceptable signal threshhold mode

|

Handset scans 21 Forward Control Channels on the "Preferred" side and selects the strongest signal and compares it to the minimum signal threshhold level

|

If the selected signal is below the threshhold level, the handset scans all 42 Forward Control Channels and selects the one with the strongest signal as the initial access pathway for the 911 call

|

Handset issues "Call Origination" to the MTSO on the selected Reverse Control Channel and starts 12 second abort timer running

|

MTSO assigns a voice channel and SAT for use during call

|

Handset tunes to assigned voice channel, turns on the handset transmitter listens for and detects appropriate SAT from base station

|

Handset Transponds SAT to the base station and enables audio path

|

Base station detects handset signal and appropriate SAT and enables outdial of call into PSTN and enables audio path

|

Caller hears supervisory signaling (audible ring) and awaits answer from PSAP operator

|

Caller and PSAP operator in conversation.

Call flow if "No Signal" from "Preferred" carrier but the signal from the other carrier is usable

Automatic A/B Roaming

User dials 911 and presses SEND

Handset recognizes 911 call and sets system select criteria to "Preferred" mode instead of "Only" mode

Handset scans 21 Forward Control Channels on the "Preferred" side and detects "No Signal" on any of the "Preferred" side channels

Handset enters the "Determine serving system" task and switches to the "Unpreferred" side

Handset scans 21 Forward Control Channels on the Unpreferred side and selects the strongest signal

Handset extracts "Overhead Information" and detects the change in system identity which triggers a Registration event

Handset issues a Registration order to the new system and will be challanged to Authenticate itself by the MTSO

Handset performs the Authentication process and returns to the call origination task with the 911 call still pending

Handset issues the call origination order on the Reverse Control Channel selected above and starts the 12 second abort timer

MTSO assigns a voice channel and SAT for use during call

Strongest / Adequate Signal

User dials 911 and presses SEND

Handset recognizes 911 call and sets minimum acceptable signal threshhold mode

Handset scans 21 Forward Control Channels on the "Preferred" side and selects the strongest signal and compares it to the minimum signal threshhold level

If the selected signal is below the threshhold level, the handset scans all 42 Forward Control Channels and selects the one with the strongest signal as the initial access pathway for the 911 call

Handset issues "Call Origination" to the MTSO on the selected Reverse Control Channel and starts 12 second abort timer running

MTSO assigns a voice channel and SAT for use during call

Handset tunes to assigned voice channel, turns on the handset transmitter listens for and detects appropriate SAT from base station

Handset Transponds SAT to the base station and enables audio path

Base station detects handset signal and appropriate SAT and enables outdial of call into PSTN and enables audio path

Caller hears supervisory signaling (audible ring) and awaits answer from PSAP operator

Caller and PSAP operator in conversation.

Handset tunes to assigned voice channel,
turns on the handset transmitter
listens for and detects appropriate SAT
from base station

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Handset Transponds SAT to the base
station and enables audio path

|

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Base station detects handset signal and appropriate SAT, performs
outdial of call into PSTN and enables audio path

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Caller hears supervisory signaling (audible ring) and awaits answer
from PSAP operator

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Caller and PSAP operator in conversation.